# Virginia Wildlife

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# Virginia Wildlife

***Dedicated to the Conservation of Virginia's Wildlife and Related Natural Resources and to the Betterment of Outdoor Recreation in Virginia***

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**PUBLICATION OFFICE: Commission of Game and Inland Fisheries, 4010 W. Broad St., Richmond, Virginia**

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Observations, conclusions and opinions expressed in *Virginia Wildlife* are those of the authors and do not necessarily reflect those of the members or staff of the Commission of Game and Inland Fisheries.


**COVER:** Wild turkey gobbler in Virginia woods, photographed by Frank T. Hanenkrat of Lynchburg.


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EDITORIAL

# How Tarnished Is Our Image

WE who hunt like to think of ourselves as the good guys who pay for conservation. And rightly so! But just how good are we? Someone said recently that only snowmobilers, motorcyclists and waterskiers were held in lower esteem than hunters by the general public. Some would even place hunters on the top of their hate list. Why? Just as anyone with beard, beads and sandals is branded a "hippie," anyone afield with a gun is a "hunter" and immediately endowed with whatever traits the observer thinks hunters have. These are usually based on experiences with the worst slobs ever encountered with guns in their hands since these unpleasant experiences are the most vividly remembered.

All of us fall somewhat short of what a sportsman should be. Some are genuine outlaws with no respect for wildlife or personal property. We like to keep saying they are a small minority, and hopefully they are. But there are others who slip not quite so far that also contribute to the hunter's bad image. There is the fellow who is basically law abiding but will do something illegal because his buddies are doing it. Then there are those who think sneaking in on private property is part of the sport of hunting. And there are those who bend the elbow a little too much and do impulsive things like shooting up signs or equipment. And probably the greatest contribution of all to the delinquency of hunters is the member of the silent majority of hunters who stands idly by and lets the worst of the hunting crowd get away with these illegal and thoughtless acts. Without his tolerance, most of the jerks wouldn't last long.

NRA Executive Vice President Maxwell E. Rich says:

"The annual cost of damage inflicted by a few poachers and vandals on our wildlife resources and sports hunting may well exceed—in terms of lost game, public and private property damage, and, above all, loss of public image by the sportsman hunter—all of the gains registered by conservationists in the hunting and conservation field."

To combat and reduce such gross game law violations, the National Rifle Association is introducing and sponsoring a coordinated national program to 'Help Our Wildlife'—HOW for short. This program is intended to rally all law-abiding citizens, not merely hunters, in the fight against poachers and vandals.

The NRA is preparing a handy card for noting and identifying violators. It is to be made available to participants in the program in time for the fall hunting season.

The card lists such data as nature of violation; motor vehicle make, color, model, license and State, if a vehicle is involved; sex, age, height, weight, hair, eyes, clothing and identifying features of violators, location of the violation observed, disposition of game taken illegally, and so on.

There are more people who are anti-hunter than anti-hunting, and until this changes the hunter's image is the greatest threat to his sport. Pretend that the whole world is watching you and judging you as you hunt this fall—because they are.—H.L.G.

## LETTERS

### Inland Hunters, Arise

REGARDING the U. S. Fish and Wildlife proposal to ban the use of lead shot, our inland waterfowl hunting is so different from coastal marsh hunting that I can see no reason for the inland waterfowl hunter to be forced to use non-lead shot. We do not have diving ducks; in most areas the water is deep. Instead, our inland mallard, black, and wood ducks feed mainly on acorns and corn. Shot is so badly scattered where blinds are not used that a duck would have a hard time finding it.

Most inland waterfowl shooting is done at long range, in contrast to coastal hunting from stationary blinds. Iron shot is not effective at long range. I recommend that inland waterfowl hunters continue to have the privilege of using lead shot.

Inland waterfowl hunters, badly outnumbered by coastal hunters, have little voice in setting waterfowl seasons. This year, for instance, the season will open on November 27. If we have extremely cold weather before that date, our no. 1 duck, the wood duck, will migrate out before we can hunt.

*Edd Burton*
South Boston

*I will pass your comments on to Mr. Chester Phelps, our executive director, who will represent the Game Commission at the Atlantic Flyway hearing in Washington.*—Ed.

**SPECIAL**
**Subscription Rate**
**Ends December 15**

It's time to shop for Christmas! **Virginia Wildlife** subscriptions reaching the Game Commission office between now and December 15 will cost $1.60 per subscription year. After that date regular rates—$2 for 1 year; $5 for 3 years—prevail ($1.60 rate holds year long when 10 or more subscriptions are sent in at one time). Don't delay—order today! Subscription envelope in this issue.

### Marlin Contest: For Students

PLEASE send me all information regarding the Marlin Essay Contest. I am 36 years old and would like to enter this contest. I have lots of constructive ideas because I enjoy hunting very much myself.

*William E. Warren*
Waverly

*The contest is open only to elementary through 12th grade school students enrolled in or having completed a hunter safety course since December 1, 1973. It is designed to give young sportsmen an opportunity to express opinions on how to preserve the sport of hunting. We will suggest to Marlin that they add an adult section since we have had several inquiries. Entries must be submitted to hunter safety instructors by November 30.*—Ed.

# DEER HUNTING TIPS

Photos by Leonard Rue III

By ED PEARCE
*Orlando, Florida*

OF our 20 million licensed hunters, over 40 percent hunt deer. During 1971, these 8,100,000 deer hunters claimed 1,860,000 kills, an approximate 23 percent success ratio. This success ratio varies slightly among the states, but is generally accurate throughout the country.

While it appears that only one in five deer hunters annually bags his buck, there's more to it than that. Of the 23 out of 100 successful hunters each year, approximately 15 are repeaters. This select circle not only are consistently successful year after year, but also account for more deer percentagewise; i.e., where two or more kills are authorized by the state for one hunter, they invariably take their limit. They are the ones I call consistently successful hunters.

These statistics indicate to me that our average hunter is sadly lacking in the incentives that make a successful hunter. Hunters that consistently bring home the venison consider the deer as an adversary with every advantage save one. He's in his own backyard; you're in a strange environment. He knows every hiding place; you don't. Your only advantage is that you can think, and you must think constantly when you hunt, if you are to outwit the deer. Even now, I sometimes wonder if a deer, too, can think. I've often seen them do so many almost unbelievably smart things to avoid being seen or heard that I'm almost convinced this instinct, if that's what it is, is their way of thinking.

I recall one hunting trip when I was patiently waiting in a tree stand. As I swept the area slowly with my binoculars, I saw a stalking hunter some 200 yards away quietly making his way towards me. At about the same time I spotted the hunter, I also saw a four-point buck emerge from the rear of a thicket half way between us and, keeping the thicket between himself and the hunter, walk rapidly towards a 10 or 12 foot high pile of recently cut tree limbs. Instead of continuing past the limbs and putting more distance between himself and the hunter, the deer dropped to his knees and wormed his way under the pile of limbs. I lost sight of him, so completely was he hidden. In about 30 minutes, the hunter had passed the deer's hiding place and was out of sight over a hill. Shortly thereafter, the deer crawled out of his hiding place, and at about 70 yards, I had an easy shot at a good buck. Can the deer think? I wonder.

You must learn all you can about him. Recognize that his senses of sight, smell and hearing are highly developed, much more so than that of man, and be guided accordingly. Learn his characteristics and his daily habits.

Hunting know-how is today the greatest weakness among our hunters. It is, at all times, a blend of knowledge you gain from talking to and observing successful hunters, from reading of the experience of others and from your own actual experiences. From all these sources and the many years that I've hunted successfully, several specific actions of the successful hunters stand out above all others.

The first thing to do preparatory to the actual hunt is to scout the area. By so doing, you learn where the game is and thus avoid wasting time hunting "dead areas." You learn the wind direction, where to stalk or place your high seat, where to enter the area, and how best to get your game out. It's a greast time-saver, a "must" practiced by all successful hunters. Most hunters never get farther away from a road than one-half mile. Go to the woods farther back; you can be sure the deer have preceded you and you'll have fewer hunters to contend with. Try to hunt on private or restricted lands (with the owner's permission, of course) or join a hunting club where land is leased and hunts are conducted in groups. You'll thus again avoid crowded areas. Locate the deer's feeding grounds. They are partial to the tender tips of apple, hemlock, oak, ash and birch trees and to acorns and beechnuts. They feed longer on calm, cloudy days and can always be counted on to be out and moving the last hour before sunrise and the first hour after sunset, so time your pre-scouting accordingly.

Locate the trails they habitually use to get from their feeding grounds to their bedding-down areas.

The first 10 years I hunted, I participated in drives conducted with other hunters and dogs. Sometimes I was successful. I also tried stalking countless times and rarely was successful. Both methods of hunting deer have their drawbacks. Drives result in spooking deer and when they're spooked they move fast, thus limiting you to running shots which are not easy to make. Stalking also is difficult, far too difficult to afford you an even chance with the deer. He can see, hear and smell so much better than you can; he has eyes like a lynx, the nose of a truffle hound, and the ears of an elephant. I believe any hunter who thinks he can consistently outstalk a deer is both egotistical and presumptuous because all the cards are stacked against him. Primarily, he must either be lucky or a marksman on moving targets of the highest caliber.

Of the many consistently successful hunters I've known and hunted with many years, every one, without exception, employs the method of still hunting. Surveys and statistics continue to show that at least 60 and possibly as high as 75 percent of deer are taken annually by this method.

Too, there is an incomparable excitement to a still hunt in gamy territory. The hunter becomes a part of the natural setting, and tries to match his eyes, ears and cunning with those of the deer. Just because his gun is an equalizer doesn't detract from making still-hunting a memorable experience. Of course, you must have first located your stand in a good place which you found when pre-scouting the area. It should be near a trail or trails which the deer use every day. And you should have erected your stand, or brought along one of the highly effective climbing seats, at the 10 to 12 foot height. As a rule, deer don't look up, and this is one of their weaknesses. Your stand should also have been placed in the shade so that the downdraft (cold winds blow downhill) will travel away from where deer approach.

Try to get to your stand before daylight and be there at least two hours before nightfall. Deer will be moving at those times.

Once in the stand, you've only a few things to remember. Be quiet, be still, don't smoke and do use your binoculars.

I've one hunting companion with whom I've hunted for about 20 years. One of the "inches" he employs in his success is the use of binoculars. He uses a scope on his rifle, as do many other hunters, but he doesn't use it to locate game as they do. He contends that good binoculars, properly used, are the only hope the hunter has to match the keen eyesight of the deer; that the hunter must see the deer first if he is to get a good shot at him. He has proven his point many times.

Cover your face with a mask or head net, wear clothes suitable for sitting still, and stay until about three hours after daylight and until you can't line up your sights at dark.

Probably the most frustrating happening on a deer hunt is to know that you did indeed hit a deer but then can't find him. When you think you have scored a hit, go to the spot and mark it in some manner (I usually use a handkerchief or a weighted piece of paper), and examine the area for some evidence to confirm the hit. A tuft of hair or a bit of blood either on the ground or a bush (flick your handkerchief against the leaves of bushes) will usually furnish the confirmation.

If you do confirm the hit, bear in mind that a wounded deer wants to hide, so immediately look around for the nearest cover. He also takes the easiest way, so look downhill for this cover. You don't want to spook him, so don't rush around noisily. Be very quiet, circle the downhill cover and approach it from the lower side. You'll normally find him within 300 yards of the place he was hit. Keep checking until you've exhausted these downhill cover spots and be very thorough in your search. It's almost unbelievable how a deer can blend into cover and how absolutely quiet he can be.

Follow tracks where possible; a running wounded deer leaves deeper than normal tracks. If you have snow or soft ground, the tracking should be relatively easy; if not, get down on your hands and knees and carefully examine the ground and the floor covering. Persevere in your search; you CAN find wounded deer.

When you have bagged your deer, you should know how to field-dress him, care for the meat until it's in the freezer, and how to cook it. Gather all the information you can find from experienced hunters, books and magazine articles on these subjects. If you actually do these things yourself as soon and as often as possible, making them a definite part of your hunting know-how, you'll derive the ultimate benefits of hunting.

Deer can easily give hunters the slip in rough cover.

# AFTERNOON

## *In the Marsh*

By
CURTIS J. BADGER
*Onley*

A good shot rewarded with successful retrieve.

It's been a good day.

THE marsh can be a fine place to spend a winter afternoon. The sun, low on the horizon, reflects its warming orange on the cold steel of the bay, and the waves are capped with white as the northeast wind catches their crests. They roll without a pattern, and then come sweeping into the marsh grass, bending the reeds to and fro in a tidal waltz. Then they recede, uncovering the pock-marked richness of marsh mud and the zillions of tiny marine organisms passing the winter there in frosty suspension.

Scanning the horizon of the bay, hoping to see a few blacks heading his way, or maybe a butterball or two, a hunter crouches down in a spot of tall grass. The decoys, meticulously planted off the edge of the marsh, bob in the choppy hills and valleys of the cold gray water. A Chesapeake Bay retriever, eagerly inhaling the salty air, is restless at his side: a tensioned spring, a wet, furry bundle of potential energy.

Time passes quickly, and as the sun sweeps lower, the clean crispness of cold salt air chills the hunter's lungs, and he can feel the coldness of the twelve gauge through the gloves, a kind of comfortable discomfort. There is no place in the world he would rather be.

No ducks. He examines his surroundings. Fantastic place, this salt marsh, and the winter gives him a chance to inspect it thoroughly. No horseflies or mosquitos now. They, with the countless other minute creatures, lie in suspended animation around him, in the cracks and crevices of the salt marsh, and buried in the rich dark ooze. Soon they will emerge and become a link in the life-chain of marine life, a meal for a creature stronger and quicker than itself, which is in turn devoured by a link farther up the chain. And so it goes.

The reverie is broken as two spots on the horizon approach, a pair of butterballs looking for a place to dine. Crouching lower in the reeds, the hunter wishes he could become a part of the marsh itself; his subconscious calls the ducks in. They spot the decoys, do an aerial dance, and fly low toward him. Safety off, adrenalin flowing, he forces himself to wait. The dog is trembling in anticipation, ready to lunge. They come closer, fifty yards, forty, thirty-five, then veer off, sensing danger. The automatic comes up and one falls. In an instant the dog is in the water, panting and whining, swimming through the cold bay toward the downed bird. He reaches it and proudly swims back to the hunter. The bird feels good in his hand; it was a clean kill.

Decoys gathered, it is time for that long walk home. Tired, cold, but feeling a special warmth down inside, he walks. There were few ducks, but it was a good day. It would have been a good day if there had been no ducks at all.

# EUONYMOUS

By ELIZABETH MURRAY
*Charlottesville*

*In Nature's Garden*

Illustrated by Lucile Walton

IN nature, certain colors can mix magnificently, whereas if we put them together artificially, they would clash terribly. The fruits of *Euonymus* are a wonderful sight in the fall, yet not many interior decorators would choose to mix so closely the purplish-magenta of the *Euonymus* fruit with the brilliant scarlet of the seed-coverings inside.

The Celastraceae or Staff-tree family is a small family of shrubs which in eastern America contains only the Staff-tree itself, *Celastrus,* Cliff-green or *Pachistima,* and *Euonymus.* There are many species of *Euonymus* throughout the world. The European *E. europeus* is known colloquially as *bonnet de prêtre* or *bonnet carré* because its four-square fruits resemble a priest's biretta. In England the appearance of the greenish-white four-petaled flowers stimulated the old wives' tale that if the flowers were scanty, all would be well, but if there was a profusion of blossom, then plague would sweep the land. Concoctions of the flowers were used to ward off the plague, but actually only caused violent nausea or purging. The name is connected with this property. Possibly the bush was called after Euonym, Mother of the Furies, who led her band of serpent-wreathed avengers against any escapee of justice and lashed him with poisonous scorpion stings (the fruit of *Euonymus* is poisonous). Or the name may come from the Greek *eu* meaning *good* and *auoma, a name,* meaning *of good repute* but in this case applied derisively actually implying not of good repute at all. Theoprastus, one of Plato's pupils who was responsible for a great many plant names, warns us of the dire effects of *Euonymus* on stock, particularly goats.

In our area there are two main species of *Euonymus E. atropurpureus,* the Burning-bush or Wahoo, and *E. americanus,* Strawberry-bush or Bursting-heart. Strawberry bush is a slender shrub which may be upright or straggling over the ground. The leaves are opposite, rather thick, oval-shaped and almost sessile, that is, with practically no stalk. The flowers are not very conspicuous, greenish-purple, borne at the tips of the branches and in the leaf axils. The fruit is a warty, purple capsule which splits open in the early fall to expose the scarlet outer covering of the seeds.

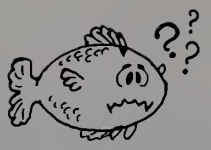
Burning-bush is a larger shrub, sometimes a small tree growing up to 20 feet high. The leaves are not as thick as those of the previous species; they are slightly hairy underneath and they do have a stalk. The flowers are purple and also rather small and insignificant. Unlike the strawberry-bush, the fruit is a smooth capsule, but it does have the brilliant *Euonymus* coloring, purplish magenta outside splitting open in the same way as *E. americanus* to reveal the seeds inside with their showy scarlet coats. *Euonymus atropurpureus* is a northerly species occurring from Ontario west to the Rockies and south to Virginia, Alabama and Oklahoma. *E. americanus* is found more in the South, from Florida up to Pennsylvania.

The Iroquois Indians are reputedly responsible for the name "burning-bush." Their legend tells of the fire dragon who had to live in water lest he set fire to the world. One day an Indian fishing in the lake got his hook entangled in the dragon's scales. The dragon furiously bit through the line and flew off. As he sped away, the hook fell out with a drop of dragon's blood on it which set fire to the bush where it landed. The gods put out the fire before it spread too badly, but they could not extinguish it completely, and every year it is rekindled briefly during the fall as the fruits of the *Euonymus* bush.

The Dakota Indians gave *Euonymus* the name "wahoo," which is their word for arrowwood, and they did in fact make arrows from it. The tree has good hard wood for making any sharp-pointed instruments. In the South, the mountaineers still call *E. americanus* "skewer wood," referring to its use in making butchers' skewers. The wood is close-grained and burns slowly to produce excellent artist's charcoal. The European species, *E. europaeus,* is called Spindle-tree because the wood was used to make the spindles of looms.

An oil made from the seeds of the European spindle-tree used to be given, as the books delicately put it, "for the destruction of vermin in hair." A preparation of the bark of American *Euonymus* has been used medicinally in this country. It was originally considered to be effective in the treatment of heart disease. More recently it was only employed as a purgative in cases of chronic constipation and sluggish livers. Nowadays it is no longer prescribed.

# A Bream By Any Other Name



By F. N. STEWART
*Mooresville, North Carolina*

SO everyone knows what a bream is, right? Does anyone really know why it is called a bream? Everyone thinks of a bream as being that small, colorful freshwater fish found in the shallows of lakes and ponds, who when given the chance will eat anything that does not eat him first and sometimes even a little of that. Bream are a young angler's first delight and a fly rod fisherman's challenge. But why are they called "bream"?

No one is really sure where the name comes from, when it was first applied to the small fishes or even why. Shakespeare and Sir Walton speak of bream in their texts several centuries ago, but their reference was probably to the European bream. This freshwater fish (*Abramis brama*) is a member of the carp family which has a deep, somewhat flattened body.

The word "bream" is also used as a nautical term. In this connection it means to clean the bottom of a ship by heating and scraping.

Conjectures and opinions of the sources and reasons for the name "bream" are many. Facts are few. When the actual truth is known, it usually sounds something like: "Well, 'bream' is what my papa and my grandpapa always called 'em; so that's what I call 'em."

The word "bream" looks like it might be pronounced to rhyme with "cream." It is actually pronounced "brim" like the name for the edge of a coffee cup. No matter, everyone knows what fishes are being talked about when someone says "bream." Most smaller members of the sunfish family qualify.

Also within the family of sunfishes are the large- and smallmouth bass, and the white and black crappie. However, these are commonly called "bass" and "crappie," and are not referred to as "bream." In different parts of the nation the word "crappie" has different pronunciations. North Carolina, South Carolina and parts of Virginia pronounce "crappie" like "craps," a gambling game played with dice. Many people in Texas, western Tennessee and the midwestern states pronounce it "croppie" like agricultural "crops."

In some northern states, the name "bluegill" is used the same way the name "bream" is used in the South. Even many people in southern states refer to all smaller members of the sunfish family as "bluegills."

Although thought of as being a small fish (average weight is six ounces), the bluegill (*Lepomis macrochirus*) world record weight is four pounds, twelve ounces. That hunk of fighter was caught in April 1950 from Kentona Lake in Alabama. Ounce for ounce, the bluegill is the scrappiest fighter of the sunfish family. This probably accounts for his popularity.

Found across the states, another bream, the redbreast (*Lepomis auritus*) is a cousin to the bluegill. The redbreast is named for his bright red or orange stomach. He will strike at the same baits and lures that the bluegill will take. Besides his bright undermarkings the redbreast has an unusually long black opercular tab. He may reach ten inches in length and may weigh up to one pound; however, the average is less than half that.

Probably the first fish caught by every new cane pole fisherman is the pumpkinseed (*Lepomis gibbosus*). A small fish with a bright scarlet spot on the back side of his opercular tab, the pumpkinseed eats mostly insects. He does seem to have a fondness for anything at the end of a hook and has "almost a boring willingness to be caught."

The redear sunfish (*Lepomis microlophus*) is found in the warmer streams and lakes. Similar to the pumpkinseed, usually larger, the redear has a complete scarlet border on the back side of the opercular flap unlike the pumpkinseed, which has only a spot. The redear prefers natural baits and only occasionally will rise to a fly or spinner. The world record redear sunfish was taken in Chase City, Virginia, in June 1970.

The green sunfish has an opercular tab much like the redear, but has a larger mouth like the bass. Green sunfish have a definite green color over the back and yellow or light orange fins. The redear has no definite bright color on the fins. The green sunfish prefers natural baits and seldom strikes an artificial.

The flier (*Centrarchus macropterus*) rises readily to artificial lures and is a hardy fighter for his size; he seldom exceeds a half pound. The flier has a dark streak running straight down from the eye and a plain opercular tab. The flier is possibly the smallest bream.

The rock bass (*Ambloplites rupestris*) and the warmouth (*Chaenobryttus gulosus*) are often confused by the fisherman where these fish are found together. Both have elongated bodies, more so than the other sunfishes. Although the looks are similar, these fish are quite different in their fighting habits. The warmouth will not weigh more than a pound and usually gives up when hooked. The rock bass may weigh two pounds, and the action has just started when he takes the business end of the bait.

The rock bass and the warmouth are usually found in different waters. The rock bass is a cool water fish and the warmouth mostly inhabits the warmer waters. The warmouth will sometimes be found in cool waters. When these fish are found together, the dark colored spots on the sides will identify the warmouth. The rock bass will have various shades of green.

Found in every southern lake and pond, bream play an important role in the food chain as well as providing excitement for the angler. One could say the pleasure and fun of fishing for these small fighters by any name runs full to the bream.

# CROWS SURVIVE THEIR FIRST HUNTING SEASON

By DWIGHT R. CHAMBERLAIN
*Ironto*

Photo by
L. L. Rue

THE naturalist Henry Ward Beecher said, "If men wore black feathers and could fly, very few of them would be clever enough to be crows." Since Plymouth Rock—long before March 10, 1972, at Mexico City, Mexico—species of the crow family (Corvidae) have been aptly described as adaptive, opportunistic, wily, crafty, successful, and by a host of analogous adjectives. The Corvidae and 31 other families of birds were added to the Migratory Bird Treaty Act on the above date as agreed upon by representatives of the President of the United States and the President of the United Mexican States. Primarily, indiscriminate jay shooting on the Mexican-U.S. border prompted the aforesaid agreement as the Mexicans have a fetish for jays and other corvids. Included in the Corvidae family are several species which require some measure of control or management in certain circumstances, specifically the two species of magpies (*Pica*) and three species of crows (*Corvus*) in the United States. The balance of the family, jays (several genera) and ravens (Corvus) are now protected by the United States Government. But in sequel, Beecher's quote should share in his epitaph as the "clever" crow has recently acquired some protection eight months out of the year in Virginia; prior to this, it could be killed at virtually any time without motive in the Old Dominion and other contiguous states as a varmint.

On July 9, 1973, the "sport" hunting season and regulations for crows became law in Virginia. **Crows may be hunted from August 1 through September 30; then again between December 1 and January 31—all inclusive—with no bag or possession limit.** There are two species of crows in Virginia, the smaller, more iridescent, and higher voiced fish crow (*Corvus ossifragus*), and the steadier flapping common crow (*Corvus brachyrhynchos*) which coinhabit more of the State yearly as the fish crow is expanding westward from its riparian haunts. The split season allows hunters to bag gregarious crows during December and January—when nocturnal roosting is at a maximum, offering a premium on "sport" hunting opportunities. August and September gunning is desirable as crows are damaging to "corn in the milk" during the late summer, and there are ample leaves on the trees to lend the birds some protection from hunters. Additionally, crow shooting in August and early September provides recreation prior to the opening of the squirrel and dove seasons in Virginia. However, the crows' "genius" has not placed them "home free." The common crow can be controlled without a federal permit under Section 16.22 of the Federal Code of Regulations in the Old Dominion and other contiguous states during the balance of the year *only* "when found committing or about to commit(?) depredations upon ornamental or shade trees, agricultural crops, livestock, or wildlife, or when concentrated in such numbers and manner as to constitute a health hazard or other nuisance." As amended June 12, 1973, Section 16.22 additionally reads that none of the crows killed pursuant to this Section, nor their plumage, shall be sold or offered for sale. The fish crow is completely protected outside the split hunting dates; a federal permit is required to control it when the general crow season is closed.

Hunters should be extremely careful not to shoot common ravens (*Corvus corax*) which resemble and are sympatric with both species of crows in Virginia. The Old Dominion protects Poe's subject under state and federal statutes. The common raven is much larger than either crow species, habitually flaps and soars like a raptor (more than the fish crow), exhibits a wedge-shaped tail and "fingered" primary wing feathers in flight, erects shaggy throat feathers adjunct to a heavy set triangular head (as seen from below), usually utters a deep, variable "croak" in contrast to the "caws" and "cahs" of crows, shows a distinct mandibular "Roman nose" effect, and often raises lateral feathered crests on the crown, whereas crows erect their head feathers uniformly during aggressive behavior. Incidentally, the common raven, largest passerine (perching bird) in the world, is currently a research subject of wildlife biologists at the Southeastern Forest Experiment Station in Blacksburg. There, scientists are studying the nesting and nocturnal roosting density, feeding habits, vocalizations, and general behavioral ecology of the species.

To discuss the timeliness or value of this federal directive to Virginia and other states would be to spin the wheels of eternity. As Henry David Thoreau noted, Civilizations shall come and go but not the omnivorous crow!

# MANAGEMENT

*—Key to Wildlife Variety and Abundance*

ALDO Leopold, father of our wildlife management profession, defined game management as "the art of making land produce sustained annual crops of wild game for recreational use." Notice that forty years ago the emphasis was on game, the harvestable wildlife species. However, in the past decade increasing attention has been paid to unharvested forms of wildlife. This trend will expand even more!

Refinements and expansions of Leopold's words have continued through the decades. For example, "Wildlife management is the *science and art* (emphasis added) of changing the characteristics and interactions of habitats, wild animal populations, and men in order to achieve specific human goals by means of the wildlife resource. These goals may frequently be sport recreation, but may also include or be restricted to esthetic, economic, and ecological goals."

In its broadest and simplest terms, wildlife management is human effort to scientifically manipulate the natural resources of soil, water, plants and animals (including man) for the far-sighted purpose of producing desired numbers and kinds of animals for the overall best interests of wildlife and man, whether aesthtic, economic, commercial, or recreational.

Wildlife managers historically have emphasized, in turn: (1) regulation of harvest, (2) predator control, (3) establishment of sanctuaries, (4) artificial propagation, and (5) habitat manipulation. Today, progressive wildlife management uses all five, but primarily harvest regulation and habitat manipulation. These techniques must be based on sound basic data derived from extensive research and field experience.

Wildlife needs for food, water, cover, and habitat vary from area to area, season to season, year to year. So do people-pressures, public attitudes and preferences. Each species differs in productivity, longevity, mobility, and in its climatic and space tolerances.

Since few animals in the wild die of old age, professional wildlife managers have to be alert to all the factors that affect wildlife. Obvious decimating factors include predation, starvation, diseases and parasites, hunting, weather, and accidents. More subtle factors influencing animal welfare may include pollution, encroachment by man and competing animals, and changes in climate and habitats. In combination, such factors limit what otherwise could be unbelievable growth in wildlife populations. For example, a pair of pronghorn antelope could increase to ten animals in just three years. Similarly, one pair of ruffed grouse theoretically could produce a population in excess of *two billion* grouse by the end of the tenth year. And in many species of fish the numbers would be astronomical in an equal time. Without "controls" there soon would be no room on earth for wildlife or man!

Human population increases have been the primary cause of wildlife and wildlife habitat reductions. Wetlands continue to be drained or filled (about 1/2 are gone), and thousands of acres of prime cropland and wildlife habitat are going under pavement and rooftops each year. Farmers are improving their short-term economics through monocultures and feel they can no longer afford wildlife the luxury of fencecrows, windbreaks, and natural stream channels. Man, with all his creature comforts, is placing ever-increasing pressure on wildlife through diverse recreational pursuits, like the use of snowmobiles and motor bikes.

We also recognize that wildlife management is people-management. Wildlife professionals must deal with many disciplines: industrialists, farmers, foresters, miners, stockmen, real estate and water developers, as well as the users of wildlife resources. Professional wildlife managers must understand all the complex factors just reviewed, for they each play an important role in the population success of any wildlife species.

Management decisions, however, range all the way from positive successful actions to less successful and less positive no actions. No action may properly include a decision to let nature take its course, such as with an insect infestation for which positive management controls might entail graver environmental risks than the infestation itself.

No action, where it represents a *lack* of management decisions, can be bad. Such unfavorable lack of action in the past has resulted in the over-exploitation of whales, marine turtles, and some spotted cats, and it has placed a drain upon worldwide wildlife resources to supply the pet trade and other commercial ventures.

Among the many wildlife management successes, most outstanding has been the vital land acquisition programs which, since 1936, have set aside almost 3 million acres of U.S. lands and 2 million acres of Canadian land for waterfowl management purposes.

Excerpted from a presentation by Fred G. Evenden, Executive Director, The Wildlife Society, at the annual meeting of National Wildlife Federation, March 30, 1974, in Denver, Colorado.

The funds (almost one-half billion dollars) for these purchases came from sportsmen.

Sixty years ago there were about 50,000 elk in the United States. There are now a quarter-million of them. Fifty years ago, 17,000 pronghorn antelope were tallied. Now there are almost 200,000 of them. Twenty years ago the wild turkey had been exterminated from most of its historic native range, but it has been brought back five-fold and most of its earlier range repopulated.

These successful experiences occurred in the face of significant increases in human population, cities, highways, farm acreage and livestock, and in concert with tremendous harvests of these species through proper management over these years. Since human population pressures for living space and income production, and man's propensity to pollute our environment continue making the future of wildlife ever less tenable, we will be fortunate to maintain wildlife even as we know it today.

Consider the plight of the bald eagle, our national emblem—the southern form is now an endangered species and the larger northern form is threatened. It is somewhat ironical that when Congress established it as the national bird, the bald eagle won out over the wild turkey by just one vote. The bald eagle was voted into disinterested prominence, became nobody's business—then we awoke to find it endangered! Contrarily, the wild turkey was a sporting bird, which, when depleted, was managed back to successful population levels.

In contrast to these unfortunate experiences, today's unharvested species, the majority of all wildlife forms, have benefited serendipitously from the development of sound wildlife management practices. Any marsh, well-managed for ducks or geese, is also inhabited by multitudes of amphibians, reptiles, sandpipers, herons, and furbearers. As our management knowledge is bolstered by new research facts, we are developing practices designed to directly benefit more unharvested species.

Much progress has been made through wildlife management techniques based on accurate information, field experience and good judgment. However, considerable additional biological data is still needed to fill existing knowledge gaps, even after 40 years existence as a wildlife profession. The greatest amount of information has been determined for species that are harvestable, because the hunters and anglers provided the funds.

Leonard Rue photos

Non-game species have also benefited from management.

It seems unfortunate that the trend toward pure preservation-protectionism is being vigorously fomented by groups of probably well-meaning persons, who, while undoubtedly experts in their chosen vocation, obviously are not experts in wildlife management. A review of reports on where the funds these groups raise are spent makes it questionable as to whose or what benefit the efforts of these paraprofessionals are really directed.

There is published evidence that at least one group desires to take away the very foundation of financial support that wildlife conservation has had in this century. As critical as protectionists are of sportsmen's efforts, they have not matched their oratory by giving financial support or personal contribution of time to the positive conservation of wildlife and other natural resources equal to that given by the sportsmen of America. More than two billion dollars of sportsmen's money has paid for land, habitat management, enforcement and research, each benefiting both harvestable and unharvestable wildlife. The protectionists have demonstrated little concern for the principal destroyer of wildlife-- habitat usurpation or alteration by man.

If these protectionist groups are successful in their present efforts, I am fearful for the very future of wildlife on our planet. Indeed, it is unfortunate that they are expending funds and energy in attempting to undo beneficial wildlife conservation programs at a time when the *truly substantial opponents* of wildlife conservation are continuing to ride higher in the saddle during these days of energy concern, human population growth and development exclusively for mankind.

Historically, it seems that those species that draw man's self-interest are assured perpetuation through appropriate financial support for adequate management measures. The wildlife profession within North America has led the world in the development of scientific wildlife management techniques.

Preservation is not a substitute for scientific management of wildlife, but scientific management of a species may require strict preservation or protection, at some particular time, as *one* management tool.

You and I, by our lack of human population control, and by our ever-mounting demands for goods and services, are the major threats to wildlife.

There really is *not* the time for fighting among the differing philosophies of wildlife conservation. Now *is* the time to band together, before it is truly too late, to develop and support programs which will move toward what should be our broad, mutual goal—the wise management of wildlife and other natural resources.

# KNOCK KNOCK—

## *Who's There?*

By RICHARD N. CONNER
*VPI & SU, Blacksburg*

WOODPECKERS, among nature's better carpenters, use sharp wedge-shaped bills to chisel comfortable homes in snags and dead sections of live trees. Occasionally, they will excavate through live wood to make their cavity nests, but in these cases the trees have a soft dead inner core in which the bulk of the cavity is carved. Different species of woodpeckers make nests of varying sizes and dimensions. The pileated woodpecker hollows out the largest cavities and may use them two years in succession.

When woodpeckers leave, other creatures may move into the vacated homes. The bluebird primarily uses abandoned yellow-shafted flicker nests as both species prefer to nest in cleared areas. Less obvious residents of old woodpecker dwellings are many species of funnel-web spiders. The nests provide dry shelters to house these small predators as they wait for insects, which are perhaps also lured by the security of the abode. Rarer occupants include the sparrow hawk, or kestrel. Each spring the male kestrel attempts to entice its mate into a cavity in which she will agree to nest. Often a previous flicker nest is found suitable. Occasionally,

Inside a pileated nest cavity.

Pileated woodpecker at nest.

chickadees and nuthatches use woodpecker nest cavities, remodeling them as necessary to fit their needs. Both species, however, usually excavate their own nests.

Other neighbors are not as patient and only wait long enough for the woodpeckers to complete their excavation. Starlings are the worst offenders. Flickers, red-headed, red-bellied, and hairy woodpeckers choosing to nest near starling populations have a continual battle throughout the breeding season. The red-headed woodpecker, a feisty species, holds its own fairly well. Flickers, although much larger, lose more skirmishes with starlings than they win. They lack a strong, aggressive nature and succumb to the "gang" tactics starlings use while competing for nests. Flying squirrels are also opportunists, claiming old or newly completed woodpecker cavities. The gray squirrel is another contender, and usually has little difficulty evicting flickers. However, the competition heightens when "bushy-tail" tackles a pileated. The pileated woodpecker is a fierce nest defender and quite adept at wielding its ice-pick bill. Despite the pileated's large size and prowess as a woodchopper, the small screech owl can oust a pair of the big woodpeckers from a new cavity, using it as a dry roost for their daytime "siestas."

Other neighborhood residents create different hazards to nesting woodpeckers. Solid cavity walls offer little defense against an agile black snake, known to scale its way up flicker and pileated nest trees, enter the cavity, and engulf the young birds. Often after its meal the snake coils up and remains in the nest until hunger prods it forth. In rare instances a black bear climbs the nest tree, rips the cavity open with its strong teeth, then devours the young.

In spite of nature's hardships, most woodpeckers raise their young successfully. Their nest cavities will continue to contribute a degree of success to other species who use their excavations.

# VIRGINIA WILDLIFE ☆ ☆ ☆ ☆

# CONSERVATIONGRAM

**Commission Activities and Late Wildlife News . . . At A Glance**

EAGLES VISIT RICHMOND OFFICE. An air and ground battle that left one American Bald Eagle dead and one injured resulted in the two birds being taken into custody by the Virginia Game Commission. Found battling in the waters of Beach Creek in Lancaster County the two male eagles were turned over to Game Warden H. H. Pittman who brought the birds to the Commission's Richmond facilities. The bald eagles were subsequently given to the U.S. Game Management Agent Walter Price, who took them to the Wildlife Research Center at Patuxent, Maryland. The surviving eagle was cared for under the supervision of eagle expert Dr. Locke. While in captivity the bird was fed chicken necks and livers and, after his recuperation, was returned to Lancaster County and released. The other bird underwent a series of posthumous tests as part of the continuing study of the eagle and its problems. The bald eagle is considered endangered in Virginia with only an estimated 60 pairs surviving at this time.

ENDANGERED VERTEBRATES REPRINT AVAILABLE. A reprint of the *Virginia Wildlife* article "Endangered Vertebrates of Virginia" that was published in the September issue is now available upon request. Based on the latest research still in progress, the reprint contains a full-color picture of several endangered vertebrates and information about them. "Endangered Vertebrates" is available in limited quantity upon request from the Game Commission, 4010 W. Broad Street, Richmond, VA 23230.

WILDLIFE FOOD TREES AVAILABLE. More than a quarter of a million trees and shrubs which provide wildlife food were planted by Virginians during the winter and spring of 1974. Autumn Olive was the major species planted. Landowners from almost every county in the state participated in the wildlife planting effort. The counties planting the largest numbers of wildlife food and cover species were Augusta, Rockingham, Bath, Wise, Culpeper, Fairfax and Grayson. The seedlings were grown at the Virginia Division of Forestry Augusta Forestry Center near Waynesboro and sold (at cost of production) on a first ordered-first served basis. For those who are interested in planting during the winter and spring of 1975, now is the time to place your order. According to Augusta Forestry Center Superintendent Wayne McBee, the crop of wildlife plants is in good shape. Species available for purchase this planting season are autumn olive, bicolor lespedeza and bristly locust at $3.00 per hundred and sawtooth oak and persimmon at $7.50 per hundred. Growing at the Center but already obligated for purchase are limited quantities of pawpaw, aspen, black alder, wild grape and Asiatic chestnut. To find the nearest location for purchasing these wildlife food trees, contact the Virginia Division of Forestry, P. O. Box 3758, University Station, Charlottesville, Va. 22903 (Phone) (804) 296-6174.

Two knives, preferably a boning knife and a carving or butcher knife, are the handiest tools, along with a sharpening stone and a honing steel. Bone saw is optional.

# BE YOUR OWN BUTCHER

By RALPH E. MIRARCHI
WAYNE P. RUSS
JOSEPH B. LINT
*Division of Forestry and Wildlife*
*Virginia Polytechnic Institute*
*and State University*

Cut beside the fifth rib (counting from front) to separate chuck from ribs.

Cut first parallel and then perpendicular to backbone to remove entire loin, or cut into chops.

The loin removed in step 4 may be cut into large sections for roasting or sliced for steaks. A strip of bacon wrapped around and secured with a toothpick makes a tasty filet.

Cut between 12th and 13th rib and across ribs near loin to make standing rib roast.

The above cut can also be made into chops by cutting between these ribs.

ROUND

WITH the advent of deer season, Virginia's sportsmen will once again venture into the woodlands to test their hunting prowess against the elusive white-tailed deer. In seasons past, thoughts of a trophy rack, a thrilling stalk, or just the idea of becoming a free spirit in natural surroundings have driven scores of hunters to abandon their warm beds for cold mountain slopes during the deer season. Although these thoughts will undoubtedly linger in the minds of sportsmen, an ancient but renewed impetus has been added to the hunting urge. With the scarcity of beef and rising food prices, thoughts of prime venison to supplement the winter larder are becoming more commonplace. What once may have just been an annual sojourn into the woods for a change of pace may now become a determined effort to put meat on the table.

As most hunters realize, a major portion of the work involved with deer hunting begins after the kill is made. Besides the labor involved with transporting the deer, it must be properly dressed, skinned, and aged. When the time comes to turn the carcass into dinner fare, the average individual will deliver it to a local butchering

Remove the hindquarter at the pelvic joint, which can be separated by cutting and twisting.

Remove the meat remaining on the forequarter either for grinding, or for stewing.

Remove shoulder by cutting tissue beneath shoulder blade. Shoulder and leg meat is boned and ground into hamburger, or made into roast.

Rolling and tying as roasts turns odd-shaped pieces into tasty boneless morsels.

establishment for processing. Although this may be the easiest way for the sportsman to butcher his deer, it is for most individuals the most costly. After going through all of the work preparing the carcass, why not cut it the way you desire? By keeping the family budget in mind, the average sportsman can easily become his own butcher. All that is necessary are a few essential tools and an adventuresome spirit.

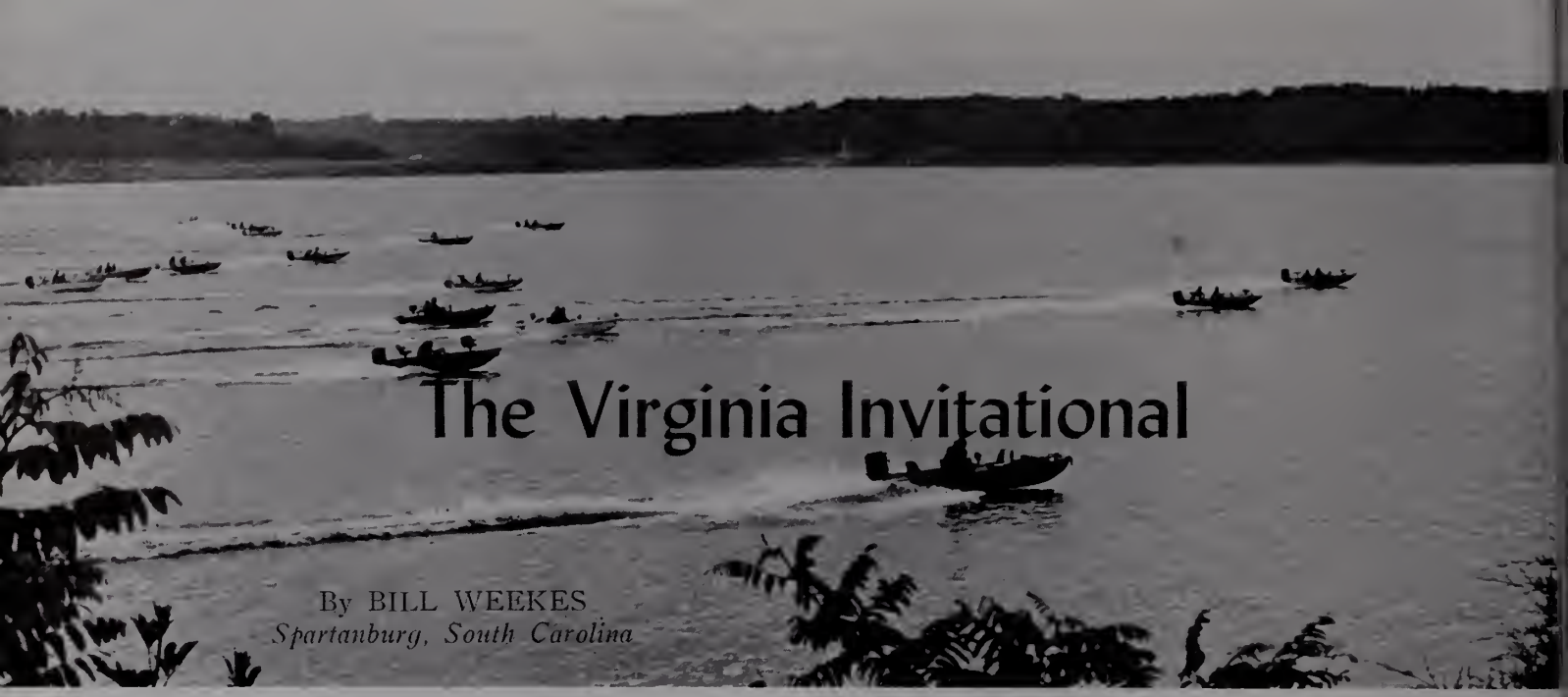
The accompanying photographs illustrate the various options available to the self-made butcher. The thickness to which the steaks are cut, and the amount of meat ground into hamburger depend upon personal preference. Hamburger meat should be ground along with beef suet. Once again the amount of suet used is dependent upon individual tastes. A good rule of thumb, however, is that one pound of suet should be ground with every four pounds of venison. After all the meat is butchered, it should be wrapped in freezer paper and sealed with freezer tape for cold storage. Now your venison is ready for that old family recipe!

With the outside of hind leg down, remove the bone from the round.

Beneath and parallel to area where bone was removed, at the natural separation between muscles, divide the round into front and rear sections.

Separate shank from round by cutting into knee joint from rear. Shank meat is boned and ground.

Slice the two sections of round into steaks by cutting across the grain.



# The Virginia Invitational

By BILL WEEKES
*Spartanburg, South Carolina*

AS Don Shealy of Fayetteville, North Carolina, heaved his olive-green corduroy Alpine hat high above the milling crowd at Kerr Reservoir's Clarksville Marina landing last June 7, he let out a tonsil-vibrant victory holler.

The Rebel yell not only marked the moment when the 39-year-old angler discovered he had clinched the Virginia Invitational, but it seemed to officially echo the end of the Old Dominion's first national bass tournament.

For the first time in its seven-year, 44-tournament history, the 170,000-member Bass Anglers Sportsman Society (BASS) had conducted a national tournament in Virginia. In fact, the 50,000-acre Buggs Island Lake (as it is known locally) represented the farthest north and the farthest east the Montgomery, Alabama-based BASS organization had ever come to run such a show.

Fishing-wise, the $22,225 event was one of the most fruitful in BASS tournament history; 2,066 bass were captured, weighing a total 4,352 pounds seven ounces. This averaged out to two pounds of fish caught for each of the 200 entrants who, as a group, had traveled to Clarksville from 23 states. These figures are even more impressive when one considers that the Virginia Invitational was BASS' first eight-per-day limit competition. Other national BASS tournaments allowed daily limits of ten fish.

Invitational winner Don Shealy, right; his Friday fishing partner, Woo Daves; and Buggs Island bass.

BASS photo

Although Buggs Island is 24 years old, last June proved it still to be one of the big bass lakes in the country.

"I love this lake," stated veteran angling competitor John Powell of Montgomery, Alabama, runner-up the first two rounds but ultimately finishing 13th. "The weather seems always right, the water level seems right, and the fishing's always right. Most lakes aren't really like you read about them in the newspapers. It just so happens that any day you want to fish Kerr, it's good fishing. It must be the chemistry in the water that flows down here from the Roanoke and Dan Rivers that makes this lake grow more shad and other bait."

Shealy must have loved the lake as well, after bringing in a three-day total of 63 pounds three ounces. This degree of scale-bending earned him $4,140 first-place prize money. Although Shealy fishes Kerr six to eight times a year, the June event marked the first time he had ever crossed rods with the "big boys" of national BASS tournaments.

Shealy said there were two things that probably helped him the most in the tournament—his equipment and his remoteness from other boats. The Fayetteville building supply manager said he had to sacrifice two hours a day in traveling time. He wound up fishing in an extreme southeastern section of the reservoir, the lower end of Nutbush Creek.

"Not being bothered by anyone is very important," observed seven-time champ Bill Dance of Memphis, Tennessee. "You see, when you take to an area and work over the fish—especially shallow water fish—you're going to deplete the supply.

"I stayed away from shallow water because the water was falling, and falling fast every day. Water two to 2½ feet the first part of the week finally wound up six to ten inches deep."

But Shealy didn't have any trouble finding shallow-water fish amid the roots of willow bushes. Unlike everyone else, he used a closed-faced spinning reel. He finds it much more accurate than the ubiquitous open-faced spinning reel. Also, instead of fashioning a slip-sinker on the line, he placed a No. 4 shot up the line six inches from his six-inch Creme purple worm.

"The shot makes the worm look more alive," he said.

"I saw a lot of the fish hit the bait, the water was so clear," Shealy commented. "But I don't let the bass swallow the bait. I try to get him moving. I always pull the line when he's moving. I raise the rod slowly and the fish comes up and he'll move either to the left or to the right, and that's when I set the hook."

Shealy had no easy time of it Friday. He was sweating it—at least at first. While he had gotten his limit by 10 and 11 a.m. the first two days, he would not boat his limit the last day until 1 p.m. His partner, who was in the back of the boat, had the first five strikes and had a four-to-one advantage early in the day.

"I figured I might finish in the top 20 anyway," he confided, "but then I caught five fish pretty quickly, and I figured I had a chance."

Among the 45 Virginians entered, six finished in the top 35, thus guaranteeing themselves at least $275 in prize money. They were Woo Daves of Chester (tenth place with 47 pounds, six ounces); Fred Nichols of Ridgeway (12th with 46-3); Buddy Allen of Colonial Heights (16th with 41-18); Bob Blankenship of Richmond (28th with 36-2); Lynwood Merrick of Martinsville (31st with 35-10); and Wade Singleton of Arlington (34th with 34-9).

Merrick won an additional $250 by matching Friday's largest fish, a fighter weighing 6-10. He also snagged a largemouth weighing 6-7 the same day. Both leviathans were fooled by a pin-striped Hellbender on a 12-pound Stren line.

"All the fish I located had been in deep water and for that reason I was using a light line so as to allow the plug to run deeper," said Merrick, a machine shop worker. "But I caught the two big ones in about two feet of water. They were late-spawning fish in shallow flats."

Bill Baugh of Bassett, Va., nets Jim Houston's 2-3 lb. bass.

Shealy congratulated by peers. BASS President, Ray Scott, on stand.

One Virginian who enjoyed a front-row (and back-row) seat in observing the race for individual honors in the Invitational was Woo Daves. He was Shealy's Friday partner. Daves was the Virginia state BASS Federation champion and high individual runnerup in the National Bassmaster Team tournament held in May at Table Rock. Mr. Daves led the Virginia team to second place in the tournament, which was entered by teams from 24 states.

Several game wardens of the Virginia Commission of Game and Inland Fisheries were on hand each day of practice and during the tournament to ensure the safety of the event. Two 17-foot, 165-hp patrol boats toured the lake throughout the time of the competition. Also on hand was the Commission's only airplane—a two-passenger Piper Super Cub, which housed a 150 hp single engine.

"I was surprised at the way the tournament was controlled," stated Gerald Simmons, game warden supervisor of the 20-county Patrick-Henry District. "Everyone I saw abided by the rules of safety. This was noteworthy considering how the fishermen were always in a hurry."

How did Clarksville residents view this new event to Virginia?

"Everyone here was real pleased," stated Wayne Roberts, president of the Clarksville Chamber of Commerce. "Including the days of practice, I estimate the tournament meant between $50,000 and $60,000 in local business. And as far as hurting the fishing here, there was no problem, no indication at all. Buggs Island has 800 miles of shoreline and 52,000 acres, more than enough water to absorb such an activity. I was also real pleased with the return of live fish back into the lake."

Of the 2,066 fish caught, 1,832 were put back into Kerr alive, a 69.1 percent survival. This was a good showing considering the fact that temperatures of 80 to 85 degrees prevailed during the warmest portions of each day.

The Chamber of Commerce put up $3500 to sponsor the event and BASS paid the prize money out of the entry fees, which was $200 per angler.

# GALLO

# THE WILD TURKEY

By CARSTEN AHRENS
*Pittsburgh, Pennsylvania*

F. Rue photo

THAT spring, Gallo was the turkey poult to hatch from the ninth and last egg in the nest of leaves and bracken in the all-but-crumbled-away stump on the shoulder of South Mountain. The mother turkey was patient with that lone, buff, brown-spotted egg. Almost a day had passed since the eighth poult had pipped its shell.

The hen turkey was a comfortable old bird. She would weigh a good 12 pounds, and from her beak to tail's tip would measure 36 inches. Her general coloration was black, but everywhere there were quiet iridescences—blues, greens, reds, and chestnut-brown—that made it possible for her to blend so completely into the mountainside in any season. Her head and neck were grayish and neutral, so one hardly noticed the absence of feathers there. The wings were barred in black and white but were unnoticed except in flight.

Tom turkey, her mate, was no such modest bird. He was a foot longer and many pounds heavier than she. While his feathers were predominantly black toward the front at this time of year, they carried a grand sheen of metallic bronze, copper, and green. His head and neck were most obviously without feathers. The skin was warty and changed hues to fit his moods, so at various times it might appear to be gray-white, blue, or red. Crimson wattles hung down his throat, and a curious red and fleshy protuberance grew from the base of the upper bill. It flopped now on one side and then on the other of the slightly turned-down beak. From the center of his chest dangled a long, dark, bristle-like tuft of feathers. The black and white wings were big and powerful. Rearward, the back and tail feathers were a deep reddish-brown which became chestnut-brown down the sides and below. The legs bore spurs and the scaly feet were reddish.

Is it any wonder that of all the birds in the New World, the turkey impressed statesman and scientist Benjamin Franklin most of all? In 1784 he wrote, "I wish the bald eagle had not been chosen as the representative of our country . . . The turkey is a much more representative bird, and withal a true original native of America."

But, of course, any human's observation about turkeys or whether or not the image of one should stand in plump confidence on the staff above Old Glory wouldn't have been given a moment's thought by a hen turkey! She was concerned about that last unhatched egg. The other downy young ones were bright-eyed and ambitious to get going, to leave the old nest, and the stubborn egg that wouldn't hatch. The old turkey was eager to move on too. Twenty-eight days is a long time to spend on or close to a nest, to guard it from hungry creatures who would have stolen the eggs, to protect them during the cold spring nights and the heavy rains that at least biweekly visited the mountain. She often sat in carved motionlessness when her own mate came into the vicinity. She blended so perfectly into the environment that nothing, not even he, would know she was about.

The nesting site might have seemed peculiar to anyone else except the old hen for it was on a steep and rocky incline. No big trees or shrubs grew in the immediate vicinity, just an accumulation of pumpkin-sized boulders, rounded by time and temperature, wind and rain. Above the brooding hen was just a ragged stand of bracken fern and the sky.

Just below her and encircling the shoulder of the mountain was a natural downward curve that deer had discovered centuries ago. Ever since it had been used as an occasional pathway not only by them but also by the Indians, the early settlers, and the more pedestrian of wild animals.

The old turkey, by lifting her head on its long neck, could look down the path and watch the animals go by. She knew which ones she could ignore—the beaver, cottontail, hare, raccoon, squirrel, and woodchuck; those she had reason to fear—the bobcat, fox, mink, skunk, weasel, and perhaps most of all, the wild dog, who traveled in packs. But evidently she had selected the nesting site wisely for none of the predators who often passed within a few yards were aware of her presence. None expended the effort necessary to climb among the barren boulders around her; the trail was so much easier to negotiate.

There was general rejoicing when Gallo, the tiny tom turkey broke through the shell and rested for a bit, wet and bedraggled, as little turkeys always are when they come out of the cramped world inside the shell and into the amazing wide world outside.

While birds like robins and wrens, hawks and owls,

are completely blind, helpless, naked at birth, and need 100% care by one or both parents, wild turkey babies take care of themselves from the start. This is true of the precocial young of that great group of birds to which turkeys belong and which includes grouse, guinea hens, pheasants, peacocks, and domestic chickens. Many of these birds originated elsewhere in the world; turkeys were indigenous to the Americas.

Gallo's brothers and sisters were covered with down and were actively running about, investigating everything and in no time he joined them. But at a stern "cluck" from the hen, they became motionless; they "froze" wherever they were and their protective coloration made them seem just a part of the general carpeting of the forest floor.

Now that Gallo could get along, the mother turkey led the nine farther up the slope to a little wet meadow edging the creek. Turkeys have powerful legs and wings. They can run and fly with amazing speed if necessary; they'll leave a mounted rider far behind. But they're homebodies, do not migrate as most birds do, and will spend a lifetime on the same mountainside if food is available. They avoid some predators by roosting in trees at night; then by day they return to the ground for food-getting.

But now the old turkey slowed her steps so that the little ones could stay together, and all the while she made murmuring sounds that seemed to give them confidence and probably made each feel he was important and a part of the group. At any rate, morale was evidently high, there was excitement, and things to eat here in the little meadow. On the cliff side was a dense thicket of rhododendron, mountain maple, and hemlock. Where the little family walked grew sphagnum, sedges, all sorts of water plants and an occasional small tree or shrub where years of sphagnum moss growth made it possible for them to get a foothold.

What wonderful things there were to eat: spiders and daddy longlegs, midges, crane and other kind of flies, along with tiny mollusks, crustaceans, and an occasional amphibian. The old turkey caught larger insects: grasshoppers, bugs, and beetles, an occasional butterfly or moth which she broke into pieces before sharing them with the young. Even a gleaming dragonfly, the very master of the airways, succumbed. As he rested for a moment on a last year's fern frond, the old turkey's head on its sinuous neck—swifter than sight—plucked off the surprised insect. She snipped away the glassy, veined wings and the poults played games with them.

One morning the old hen led her brood to an area that she had avoided for many weeks. The little family was now about half-grown and had been reduced to seven. Each night they had been nesting in a friendly old hemlock by the little meadow. Its limbs began almost at the ground, so climbing to the upper limbs was no great stunt. Near the crown of the tree each night, the turkeys with much jabbering and jockeying about for positions as close to the old bird as possible, finally quieted down for the night.

One of them had always come to roost late. He looked over the family's perching arrangement, and then usually selected a place away out on a dead limb. One night a great horned owl on huge but soundless wings swept in and lifted off the lone bird so neatly and quietly that none of the family, each with his head under a wing, heard even a gasp.

The other perished with pneumonia. In late May the mountain was visited by a cold, rainy weekend. The temperature almost reached the freezing point. The birds, cold and uncomfortable, huddled together in the rhododendron thicket. They tried to find warmth and comfort against the body and under the sheltering wings of the old turkey. But now they were too big. And one was left behind, dead in the thicket.

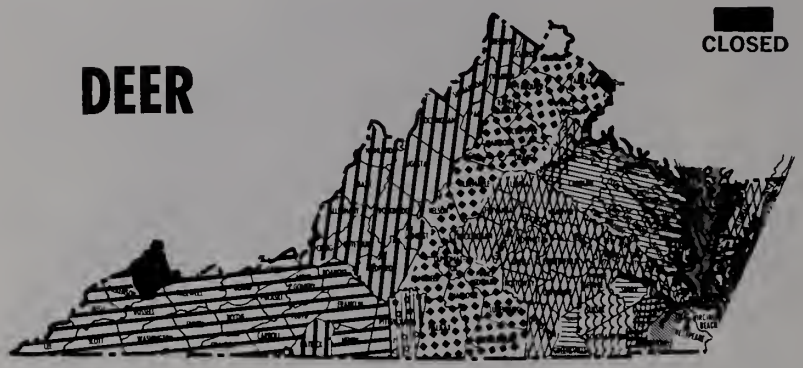
So the old hen led the seven to meet their sire. She knew each was alert enough and agile enough to escape the old gobbler should he be ill-natured. She took them to the display ground where her mate had his headquarters. It was a glade in a grove of red oaks. At night the old tom roosted safely in the dark trees. In spring, he paraded up and down in the open space, now and again shouting out his hoarse "Gabbo-obble-obble" for all the turkey toms to hear and heed. Roughly translated: Stay out of my territory. These are my hens. Enter and be extirpated!"

When it came to performing this annual ritual, the gobbler put on a display that had to be seen to be believed. His normally long, well-built body suddenly looked barrel-like. He puffed himself up, every tail feather now on end, forming a semicircular fan. The wings were held so stiffly downward that as he strutted about the feathers scratched the earth. After several weeks of being "displayed," an inch or two of these wing feathers, where they met the earth, were actually worn away! Sometimes several big toms were strutting about in their gay plumage, each trying to overawe the others. There were mimic jousts and mock battles. Sometimes they appeared as old-fashioned windjammers with all sails set on a collision course with each other. But when they met headlong, nothing happened. They glowered at each other but soon sidled past. Occasionally, one might spring at his rival, but the leg spurs, businesslike as they appear to be, never went into action.

Late in fall, the members of the turkey family developed new loyalties. Gallo joined a flock of young bachelors who wintered together in a grove in the valley where they gleaned in the harvested wheat, corn, and soybean fields. His mother and sisters joined a flock of hens that stayed about the rhododendron thicket. The old toms, who had feuded all spring, now roamed, fed, evaded the hunters, and roosted together in the ancient oaks.

# 1974 Hunting Season Slate

## DEER




October 1 - November 30—Two deer* per license year, bucks only

November 18 - January 4—Two deer* per license year, of either sex

November 18 - November 30—One deer* per license year, bucks only

November 18 - November 30—One deer* per license year, either sex the last day only

November 18 - January 4—Two deer* per license year, one of which may be a doe the last hunting day only

November 18 - January 4—Two deer* per license year, bucks only

November 18 - January 4—Two deer* per license year, one of which may be a doe during the last twelve hunting days only

November 18 - January 4—Two deer* per license year, one of which may be a doe on the last 6 hunting days only

November 10 - January 4—Two deer per license year, one of which may be a doe on the last 12 hunting days

October 1 - November 30—Two deer* per license year, one of which may be a doe during the last 6 hunting days only

* With antlers visible above the hair except as otherwise specified.

## BEAR

November 25 - December 31

November 5 - January 4

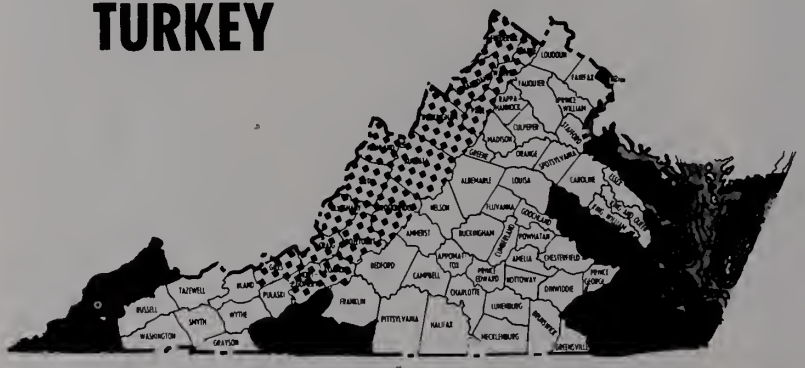
October 1 - November 30

November 10 - January 4

CLOSED

Bag Limit—One per license year at least 100 lbs. live wt. Females with Cubs may not be killed.

## TURKEY



BAG LIMIT
ONE PER DAY
Three per license year, no more than two of which may be taken in the fall, and no more than two of which may be hens (where legal).

November 11 - December 31—Two of either sex

November 11 - December 31—Bearded turkeys only

CLOSED TO FALL TURKEY HUNTING

### PRIMITIVE WEAPONS SEASONS

Archers may take deer, bear and squirrels from October 12 through November 9 in all open counties. The bag limit is one per day, one per license year (either sex) in western counties with a 1 deer limit, and 1 per day, two per license year (either sex) in eastern counties with a 2 deer limit. Game taken during the archery season is to be included in the total permitted for the license year. Regular bag limits apply on bear and squirrel.

Muzzle loaders may hunt deer only on the Gathright, Clinch Mountain and Goshen-Little North Mountain Wildlife Management Areas from November 4-9. Weapons must be at least 45 caliber, fire a single projectile loaded from the muzzle end and propelled by a minimum of 50 grains of black powder. Telescopic sights prohibited. The bag limit is 1 buck* with animals taken to be counted as part of the hunter's license year limit. Muzzle loading pistols may not be used.

## GROUSE

November 11 - February 15—Statewide—Bag limit 3 per day; 15 per license year.

## RABBIT

November 11 - January 31 — Statewide — Bag limit 6 per day; 75 per license year.

## QUAIL

November 11 - February 15—Statewide—Bag limit 8 per day; 125 per license year.

PHEASANT November 11 - 16—Bag limit—One cock bird per day. Two per license year.

# PHEASANT HUNTING
## IN VIRGINIA

By W. HASSEL TAYLOR
*Game Research Biologist*

THE earliest recorded successful pheasant introduction in the U.S. was made by O. N. Denny in 1881 when he imported 100 pairs of Chinese ringnecks from Shanghai to the Willamette Valley of Oregon. Although many other states and individuals followed Oregon's example, pheasants became established in only 19 northern and western states.

Virginia had its share of unsuccessful exotic releases. One early private release (1947) of ring-necked pheasants on Cedar Island in Back Bay was considered successful for years but was sustained only by almost yearly restocking. Attempts were made by the Game Commission to propogate coturnix (Japanese quail) from 1956 to 1959: 12,548 were raised, then released during three breeding seasons. They disappeared so rapidly when released that stocking was discontinued.

Brood stock of eight different species or subspecies of pheasant and two species of partridges, obtained through cooperation in the Foreign Game Investigation Program, were used at the game farm for production of pure strains and crosses for experimental stocking.

The first pheasants obtained were western Iranian blacknecks and eastern Iranian blacknecks received in December 1957 from Iran. Imperial Valley Chinese ringnecks were obtained in March 1958 and cross breeding with the two varieties of blacknecks was begun. The first releases were made on September 26, 1958; 300 birds were released at Sandy Point in Charles City County and 50 birds were released on Hog Island Refuge. A follow-up release was made on March 20, 1959, by releasing 400 birds at Sandy Point and 50 birds on Hog Island. These birds were western Iranian blackneck crossed with Chinese ringnecks. The Hog Island birds moved off the refuge or died within two years. The Sandy Point birds remained and have continued to be one of the most successful of the entire stocking program.

Japanese green and Reeves pheasants were obtained in 1959. The Reeves were unable to tolerate Virginia weather at the Game Farm, and the brood stock was disposed of after attempting one release which soon disappeared. Japanese greens have been produced and stocked in Tidewater, Northern Piedmont and Shenandoah Valley.

Black francolin and red junglefowl were acquired in 1960. Wild black francolin, which were trapped and shipped from India by Dr. Bump, were released on Hog Island Refuge in 1959. They persisted for about two

J. W. Simone photo

years. The junglefowl developed the disease Staphylococcus in the feet after the feet cracked due to freezing. After two years, the brood stock was transferred to South Carolina.

French redleg partridge and Korean ringneck pheasant were obtained in 1966. The Korean has been crossed with the Iranian blackneck. The redleg has been stocked with no success.

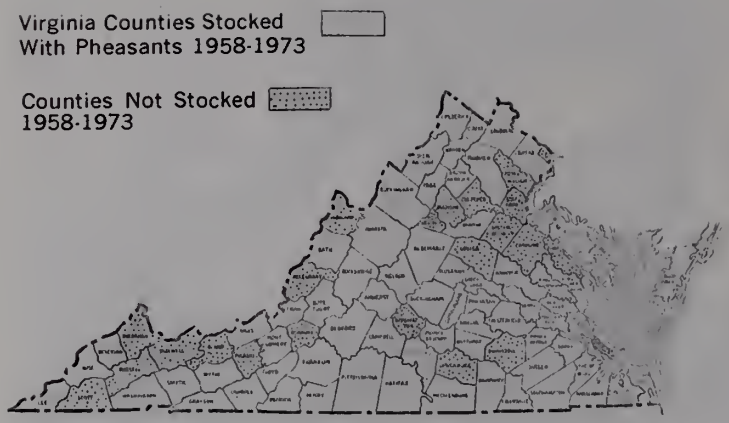
Kalij pheasants were shipped to Virginia from India by Dr. Bump in 1960.

Since the first releases in 1958 about 49,000 pheasants have been raised at the state game farm in Cumberland and released in 77 counties (Figure #1). Most of these birds were the blackneck-ringneck crosses and the Japanese green pheasants. The western Iranian blackneck-ringneck cross has been raised in greatest numbers but has been successful in very few releases. Notable is the Charles City County release on Sandy Point, which was the first release. The eastern Iranian blackneck-ringneck cross was not produced in as great numbers but it has proved the most successful in northern Virginia; most notable, the Page County release.

The Japanese green pheasant has shown some success on the Eastern Shore, Northern Neck and in Shenandoah County.

All other exotic pheasants released in Virginia have not proven successful.

In 1970 it was decided after a thorough study that there should be an experimental cocks-only season to see if the pheasant could survive limited hunting. A two-day one cock per day season was set to start with the opening of the general hunting season. All hunters were required to register their pheasant kills at the nearest big game check station. After two years of two-day seasons, 1970 and 1971, showed no apparent harm to the breeding population, it was decided that the season should be extended. A six-day season with a bag limit of one cock per day—two per season and opening during the one week early small game season was set in




1972 and 1973.

Table #1 shows harvest reported by county for each of the four seasons. Page, Loudoun, Shenandoah and Rockingham have consistently accounted for the majority (78% in 1972) (85% in 1973) of the total harvest. The doubling of the total harvest with the one week season in 1972 was expected with the increased length of season. The slight drop in the 1973 harvest may be due to failure of hunters to check their kills. If an accurate record of the harvest is to be kept, it is imperative that all cock pheasants killed be checked at the nearest game check station. Check station operators are instructed to fill out a game kill tag for each pheasant the same as for deer, turkey and bear. Thirty-six per cent (163 cock birds) were reported harvested on opening day 1972 while 39% (161) were taken opening day of 1973. Weights recorded on kill tags, 38 (1972) and 148 (1973), averaged 2.7 lbs. for 1972 and 2.66 lbs. for 1973.

What does the future hold for pheasant hunting in Virginia? As mentioned earlier only the blackneck-ringneck cross and the Japanese green pheasants have shown any success.

Techniques have been developed for trapping and transplanting wild pheasants from areas where they are doing well and future propagation can probably benefit from crosses with wild stock. A direct trap and transplant program is now underway to catch some blackneck-ringneck cross birds from the Northern Shenandoah Valley and transplant them further south in the valley.

The southern piedmont appears to have little promise of becoming pheasant range. The northern piedmont and Shenandoah is presently our best hope to become good pheasant hunting. The excellent pheasant hunting of the Dakotas and Nebraska will never be realized in Virginia, but with good cooperation of landowners and sportsmen perhaps pheasant may become more common in the sportsman's game bag. Respect for seasons and limits on these birds is critical if they are ever to expand their range in the state. It costs several dollars to raise a bird to release size and several times that amount to trap and move one from the wild. Each of these birds killed illegally represents a considerable loss of sportsmen's money invested in the project and reduces the chances of ever having these magnificent game birds in quantity for all Virginians to enjoy.

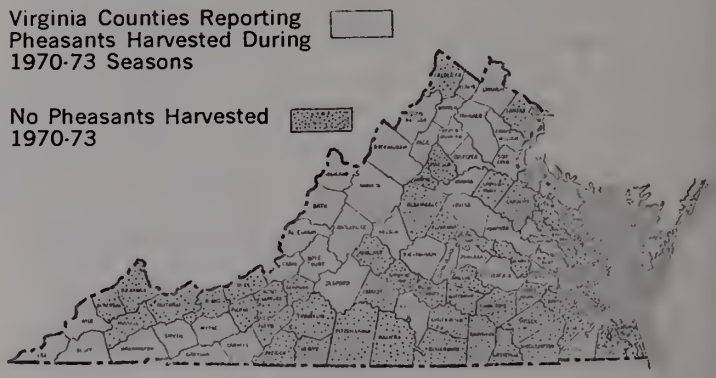
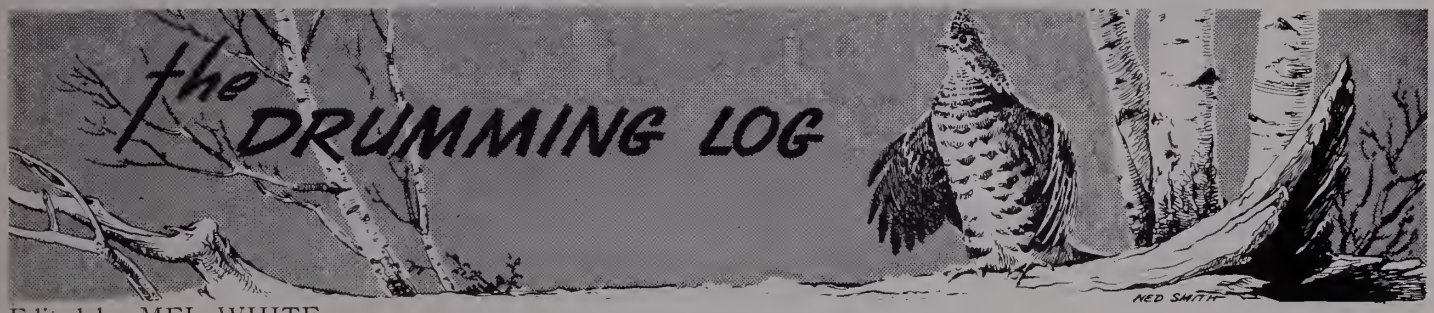



**Table #1. Pheasant Harvest by County for 1970, 71, 72 and 73 in Virginia.**

| County | 1970 | 1971 | 1972 | 1973 | County | 1970 | 1971 | 1972 | 1973 |
|---|---|---|---|---|---|---|---|---|---|
| Accomack | 3 | 1 | 4 | 9 | Loudoun | 50 | 41 | 76 | 83 |
| Alleghany | 0 | 0 | 1 | 0 | Louisa | 0 | 0 | 1 | 0 |
| Augusta | 8 | 3 | 16 | 9 | Nansemond | 0 | 1 | 0 | 0 |
| Bath | 0 | 3 | 2 | 0 | Nelson | 6 | 1 | 1 | 0 |
| Bedford | 0 | 0 | 0 | 1 | New Kent | 1 | 0 | 1 | 1 |
| Botetourt | 2 | 0 | 2 | 0 | Northampton | 12 | 12 | 7 | 6 |
| Buckingham | 2 | 0 | 0 | 0 | Northumberland | 4 | 0 | 3 | 5 |
| Carroll | 0 | 2 | 0 | 0 | Orange | 0 | 0 | 1 | 0 |
| Charles City | 13 | 10 | 16 | 2 | Page | 63 | 87 | 170 | 162 |
| Charlotte | 1 | 0 | 0 | 0 | Powhatan | 0 | 0 | 1 | 0 |
| Chesterfield | 1 | 0 | 0 | 0 | Prince Wm. | 0 | 0 | 3 | 2 |
| Clarke | 0 | 0 | 1 | 0 | Rappahannock | 2 | 0 | 0 | 0 |
| Craig | 0 | 0 | 0 | 7 | Richmond | 0 | 1 | 1 | 1 |
| Culpeper | 1 | 0 | 0 | 0 | Rockbridge | 0 | 0 | 3 | 0 |
| Cumberland | 1 | 1 | 0 | 4 | Rockingham | 18 | 32 | 48 | 44 |
| Fauquier | 2 | 0 | 2 | 0 | Scott | 0 | 0 | 2 | 0 |
| Grayson | 0 | 0 | 0 | 1 | Shenandoah | 20 | 22 | 60 | 65 |
| Hanover | 1 | 0 | 0 | 0 | Smyth | 0 | 0 | 2 | 0 |
| Highland | 0 | 1 | 0 | 0 | Stafford | 0 | 2 | 0 | 0 |
| James City | 0 | 0 | 1 | 0 | Warren | 0 | 0 | 1 | 0 |
| King George | 1 | 0 | 2 | 3 | Washington | 0 | 0 | 0 | 1 |
| King William | 0 | 0 | 3 | 0 | Westmoreland | 0 | 1 | 2 | 1 |
| Lancaster | 5 | 5 | 6 | 7 | Wise | 3 | 0 | 7 | 0 |
| Lee | 0 | 0 | 1 | 1 | Wythe | 1 | 0 | 5 | 3 |
| | | | | | TOTAL | 221 | 226 | 452 | 418 |




Edited by MEL WHITE

## GOVERNOR'S CONSERVATION AWARDS

1974 Governor's Conservation Achievement Awards were presented at the 24th anniversary celebration of the Virginia Wildlife Federation held October 19 at the Hotel Chamberlain in Fort Monroe, Hampton.

Established by the Virginia and National Wildlife Federations and Sears, Roebuck and Company, the Conservation Achievement Program recognizes those individuals, professionals, nonprofessionals, and organizations who are working towards long-range conservation efforts.

The state winners are eligible for national recognition to be awarded later this year by the National Wildlife Federation.

### Governor's Award
### Newton H. Ancorrow

The Virginia Wildlife Federation chose Mr. Newton H. Ancarrow of Richmond to receive its highest honor, the Governor's Award for Conservation.

Mr. Ancarrow has been active both as an individual and as an active member of many organizations. Some of his most recent efforts include the production of a film on stream channelization, an active role in the James River 3 (c) Study Committee, as well as individual evaluations of the major Impact Statements and water permit applications.

### Forest Conservotionist of the Year
### James W. Engle, Jr.

Mr. James Engle of Swoope, Virginia, has been active since 1950 in the field of Forest Conservation through the Virginia Commission of Game and Inland Fisheries.

He has worked as District Game Biologist for the Commission, Forester in charge of forest management and forest-wildlife coordination programs throughout the state, and presently is the Game Commission's Land Coordinator.

Mr. Engle has shown an interest in the needs of Virginia by his unending search for land that may be preserved. He has been responsible for the acquisition of over 160,000 acres of public hunting and fishing areas for the sportsmen of Virginia.

### River Conservationist of the Yeor
### Richord H. Skeppstrom, M.D.

Dr. Richard Skeppstrom, as an individual and as President of Citizens against Pollution, Inc., has attended public hearings, responded to public notices, held informational meetings for the public, and engaged in litigation to assure that governmental agencies act in the public interest.

### Soil Conservotionist of the Yeor
### Leslie W. King

Mr. Leslie King of Loudoun County has worked with the Soil Conservation Service for 27 years, has developed over 750 Conservation Farm Plans for Loudoun County landowners, and has led in the sponsorship of Watershed Development Projects.

### Woter Conservotionist of the Yeor
### Gerold D. Schuder

Mr. Jerry Schuder of Waynesboro has been a leader in the fight for clean water in the Commonwealth of Virginia. As a member of Trout Unlimited, he has worked to halt stream channelization, surveyed the waters of Virginia, trained others in water quality sampling, and implemented stream rehabilitation projects.

### Wildlife Conservationists of the Yeor
### Byron E. Wotes, Sr.

Mr. Byron E. Wates, Sr., of Fairfax has personally cared for wildlife and waterfowl, while working with school children, scout groups, young adults and the public in general toward an understanding of the great importance of free animals in a natural habitat.

### Gerold F. Levy

Dr. Levy of the Department of Biology at Old Dominion University, Norfolk, has coordinated many workshops and special programs including "Earth Day," "Urban Ecology Problems," and "Man and His Environment." His course, "Will Man Survive?" stimulated and led to the formation of the E.C.O.S.

### Conservotion Communicotions Aword
### Wallace Coffey

Mr. Wallace Coffey of Bristol has shown a dedicated interest in wildlife programs and environmental problems in the state through his investigative reporting for the Bristol Herald Courier.

He has bridged the gap between the sportsman and various governmental agencies by "getting from behind the desk" and seeking information.

### Youth Conservotionist of the Yeor
### E.C.O.S.—ODU Chopter

The members of E.C.O.S. (ODU Chapter) have as their goal a better environment in the Tidewater area.

Notable efforts by E.C.O.S. have been organization of the Dismal Swamp Preservation Committee, and sponsorship of education programs on environmental matters.

### Conservation Orgonizotion of the Yeor
### NCNNC

The Virginia Chapter of the Nature Conservancy has worked to preserve areas of particular beauty and natural value in the state.

### Legislotive Conservotionist of the Yeor
### Thomas J. Rothrock—Delegote District 19

Delegate Thomas Rothrock, of Fairfax, has shown an interest in Virginia's environment during a period of apathy in the Virginia General Assembly.

Edited by ANN PILCHER

### Dr. Bob's Fishing Rodeo

The 24th annual Dr. Bob's Fishing Rodeo, which took place in June, was sponsored by and held on the property of the Fredericksburg-Rappahannock Chapter, Izaak Walton League. The rodeo, named for Dr. Robert Caverlee, first president of the Fredericksburg-Rappahannock Chapter and active Waltonian for many years prior to his death, attracted 100 young fishing enthusiasts from the Spotsylvania, Stafford, Caroline, Louisa, King George area. It was elbow to elbow fishing for the competitors vying for 15 prizes donated by local merchants. Hot dogs, hamburgers, and soft drinks made the day even more enjoyable.

Invitations were issued via TV, radio, and newspaper media and through the schools. Prizes were presented by Darrell Ferrell, Chapter president and a national director of the League. Mr. Ferrell, now an assistant law enforcement supervisor, has been a Game Commission employee for 19 years.

12-year-old David W. Stamper of Galax bagged this buck with a 45 lb. wing bow last fall while hunting in the Comer's Rock section of Grayson County.

### CITATION SIZE AND MORE

Richmonder Michael Roy Cook, 7, came within 3¾ lb. of equaling the State record last March 16 when he hauled a 13 lb. 12 oz. grindle from Chickahominy Lake.

### Perfect Papers

These four 10th graders at York Academy in Shacklefords received 100 on the final examination in last spring's NRA firearms safety course: (from left) Robin E. Brooks, Jill D. Gammon, Vicki Hugate, and George W. Ripley. John W. Courtney, Jr., NRA instructor and pharmacist in West Point, taught the course, assisted by teachers Emmett L. Clary, Jr., Glenn Palmer and Miss Karen T. Wells. State Police Officer W. F. Littreal, Jr., spoke on state laws regarding firearm ownership and responsibilities. Students in grades six through ten participated, including 106 boys and 113 girls.

# Know Your BIOLOGISTS

Text and Photo
By F. N. SATTERLEE
*Information Officer*

W. H. TAYLOR
*Game Research Biologist*

Upland game bird mounts are examined by W. H. Taylor.

HASSEL Taylor was one of seven children born and raised on a 200 acre farm near the community of Comers Rock in rural Grayson County, Virginia. Although his father was influential in stimulating Hassel's interest in wild animals and the outdoors, it was his grandfather with whom he hunted and fished and from whom he absorbed the lore of the land and waters.

Following graduation from Elk Creek, Virginia, High School, the young Taylor enrolled in Lees-McRae College in Banner Elk, North Carolina. In 1942, after completing two years at that institution, Hassel enlisted in the U.S. Navy. He was commissioned a Pilot Officer following flight training and, while completing advanced training for aircraft carrier qualification, experienced the first of two crash landings in the water. Shortly after taking off from the Jeep Carrier U.S.S. Wake Island, the engine of his aircraft failed and he was forced to ditch in the ocean; he suffered no injury other than being seriously damp. He was dampened again with no injury for the same reason, engine failure, during one of the flights he made while serving for six months on Johnston Island in the Pacific.

Following his release from active duty in 1946, Hassel returned to farm the home place near Comers Rock. Later, he entered Virginia Polytechnic Institute and received a degree in Wildlife Management. In October of 1952 he was recalled to active duty in connection with the Korean War, and shortly thereafter he married the former Audrey Price of Surry, Virginia. Prior to being released from the Navy in 1954, he served in the Mediterranean Theater aboard the Carrier U.S.S. Tarawa.

Returning to Virginia, Hassel was employed as manager of the Hog Island Refuge while at the same time completing the requirements for a graduate degree which he received in 1957. In 1962 he was assigned to Culpeper, Virginia, as a district biologist and, since 1971, has served in his present capacity: research biologist.

Hassel feels that the most challenging aspect of his work is the large variety of problems which are encountered and the ultimate rewards that are the end product of the research in which he is involved pertaining to wildlife. He and Mrs. Taylor make their home in Culpeper, Virginia.

Edited by JIM KERRICK

## TAKE YOUR BOAT WITH YOU!

Be adventurous on your next vacation—take your boat with you and discover the many joys of boating on a secluded, peaceful lake, newly-found river bank or forest preserve pond.

How? Try trailering or cartopping your boat. There are many small boats available today that you can hoist atop your car, perhaps shove a small horsepower motor in the trunk, and off you go. These boats include sail, canoes, kayaks, dinghies, inflatables and small outboard boats. Some of these boats are also light enough for one person to "car top."

For the fisherman or hunter, a small boat he can cartop gives him the opportunity of fishing or duck hunting new waters.

For the larger outboard boat or cruiser, there are many boat trailers you can buy. If you trailer your boat often, you'll need a highway trailer complete with all the required safety features. There are state and federal requirements, so ask the dealer or check with your state's boating department or state police for safety requirements.

You can buy a trailer on which the boat rests on a boom or series of adjustable rollers. Another type supports the boat with cradles. Make sure the trailer is well padded wherever it supports the boat—you don't want to damage the boat.

Size and weight of your boat has a bearing on the type of trailer you need. Always match your trailer to your boat and car. The manufacturer includes a trailer load capacity recommendation plate on the trailer; heed it. If the weight of the boat is within 100 pounds, get the next larger trailer, since you'll probably load the boat with a motor, gear and what-have-you.

The trailer will need back-up lights, brakes (electrical, hydraulic or surge), hitches, safety chains and a winch for unloading. A bumper hitch will serve if you trailer a light rig. For heavier loads, use a hitch that fits directly to the car's frame.

Optional equipment is as follows: Spare trailer tire, a jack (your car jack may not fit), outside mirrors for your car, plus some extra tools to fix the trailer.

Before you hit the road with your boat, here are some helpful tips:

Check all nuts and bolts on the trailer to make sure they're tight; secure all boat tie-downs; and distribute all equipment evenly.

Check your trailer and car tires for correct tire pressure before leaving.

If you trailer the boat with the motor clamped on the transom, be sure the clamps are tight and the lower unit is secured to the transom or the trailer frame to prevent the motor from tilting forward during a sudden stop.

If you have a sailboat, tie the mast down tightly, and if it's longer than your boat, tie a cloth at the end of the mast for safety precaution (required in some states).

In long distance trailering, it's a good idea to stop every hour to check all the boat tie-downs and the hitch and safety chains.

When you get to your launching site, a little practice makes boat launching an ease. Follow these simple steps:

Come in at a right angle to the shoreline and remember that if you want the rear of the trailer to go right, turn your steering wheel to the left. And turn your steering wheel to the right when you want the trailer to go left.

Remove the rear tie-down when a few feet from the edge of the water.

Tilt the motor up and unlock the bow winch, but keep the boat snubbed tight. If your trailer is the tilt-bed type, release the tilting mechanism.

Back up until the trailer wheels are in the water an inch or two, set your hand brake and put the car in gear, be sure the wheel hubs are not under water. Give the boat a firm push down the trailer, unfasten the launching line or cable and reel it in, but be sure to keep the boat from drifting by holding a line attached to the bow.

Park your car and you're ready to go. To reload, just reverse the procedure.

### Comfort When Stranded

Is your "possible kit" in good order?

A possible kit is the modern version of the old-time mountain man's "possible bag," a deerskin pouch which contained flint and steel, dry gunpowder, knife and whatever else the wilderness traveler wanted. His thought was that if his pack and gear were lost, he'd have enough tools in his possible bag—tied around his waist—to find his way back to civilization.

Modern boaters have little use for dry gunpowder, but a possible kit could make life much more comfortable when bad weather, mechanical failure, or fuel shortage makes it impossible to return to the marina.

The modern possible kit contains items that require little space when stowed aboard a boat. A waterproof bag is the beginning of your kit. Choose each item that goes into the bag for its ability to keep you warm and dry.

Place a 10x12-foot plastic sheet in the bag first. This will serve as a shelter in case of rain, and will help protect other items in the bag from moisture.

Next, add a change of clothes and a folding cap. Put in a waterproof, screw-top plastic jar filled with kitchen matches. Add some canned food, a can opener, a quart canteen of water, a cup and spoon, and some newspaper folded inside a small plastic bag.

Now you can cover up in case it rains, and have a drink of fresh water when you want. Your "possible kit" is complete, and it's possible to cope with almost any adverse situation.

*Endangered Species Report*

By JOHN W. TAYLOR
*Edgewater, Maryland*

# Northern Flying Squirrel

VIRGINIA has two flying squirrels: the southern, fairly common over much of the State, and the northern, of rare occurrence in the westernmost counties. They are different enough that mammalogists consider them two distinct species, not merely races or subspecies.

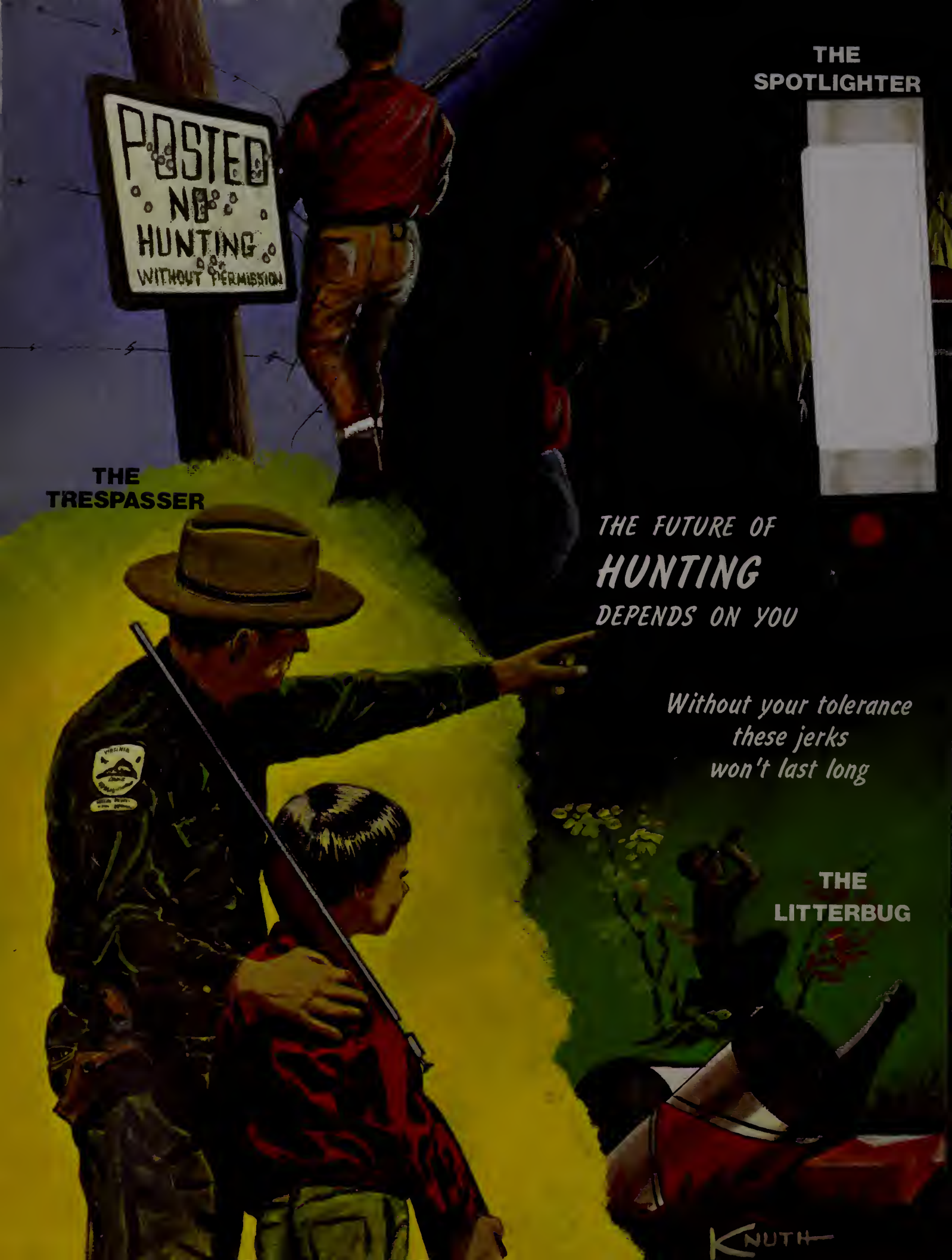
The northern is larger and heavier, with nearly twice the bulk of the southern. Otherwise, they are quite similar, the chief mark of difference being the color of the underside fur: the southern's is whitish throughout; that of the northern is slate-colored at the base.

Easier it is to distinguish them by habitat. The rarer species lives in coniferous mountain forests, often mixed with mature hardwoods. Once it probably ranged extensively along the higher ridges, but because of its nocturnal, secretive habits, was not noticed. There is but one specimen recorded from the State, and that not until after 1947 (when Handley and Patton's *Wild Mammals of Virginia* was published).

Any creature near the limits of its natural range, is especially vulnerable to habitat change. So when the original spruce and hemlock forests were cut, the numbers of this squirrel in Virginia were drastically reduced. And it is doubtful that they can repopulate lost territory, even when the new growth reaches maturity.

Possibly the species could be restored through a live trapping and transfer program, but for a non-game animal this could hardly be justified economically. So the only way to keep this squirrel in Virginia would be to preserve old growth coniferous woods in the western counties, a practice not consonant with the philosophy of those who presently manage our forests.

This particular race of the northern flying squirrel ranges from southern Pennsylvania to just south of the Virginia-West Virginia border in southwest Virginia. A close relative is found in the mountains of Tennessee and North Carolina. The species, in one form or another, ranges throughout Canada, most of Alaska and south in the United States in the Cascade, Sierra and Rocky Mountains. They are also present in the Lake States and in New England.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HUNTING
WITHOUT PERMISSION
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THE FUTURE OF
HUNTING
DEPENDS ON YOU
Without your tolerance
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THE LITTERBUG
KNUTH